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**Notice of Allowability**

Application No.

10/743,861

Examiner

G. Nagesh Rao

Applicant(s)

HAYNES ET AL.

Art Unit

1722

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/5/06.
2. ☒ The allowed claim(s) is/are 1,3-13 and 15-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Reasons for Allowance*

The following is an examiner's statement of reasons for allowance: Please see Attorney's remarks for further details.

Examiner will briefly comment the following. The applicant's claimed invention differentiates itself from the prior art because it has a limitation "...wherein the first plurality of orifices and first conduits alternate with the second plurality of orifices and second conduits."

The prior art teaches that the convergence path of the material meet at the tip of a melt blow die. For example Bentley (US Patent No. 6,565,344 B2), teaches an apparatus for producing multi-component liquid filaments which includes a die tip block for extrusion of meltblown materials comprised of the following as seen in Figures 1-6, where there being a top surface with two separate inlets (14 and 16) for materials to flow through into conduits (52 and 54) which flow into the interior of a die tip block whereby becoming a first plurality of outlets and second plurality of outlets (26a and 26b).

The plurality of outlets converge at an intersecting angle (an angle as seen in figure 3a as being an acute angle) trough (56) to a discharge outlet die tip (26).

Along the process of material flow the diameter of the passageways get smaller towards the end into the discharge outlet as can be seen in figure 3a

(anticipates the idea of the capillary having a smaller diameter than the first diameter as claimed by applicant).

There is no teaching of an alternating direction as claimed by applicant.

Another example is Harding (US Patent No. 3,825,380), which taught a similar melt blow die tip, however it teaches a single orifice (As can be seen in Figures 1-7), where one polymeric material flows through a single entrance pathway and towards the melt blow die tip.

None of the prior art found taught a physical convergence of the multicomponent liquid filaments up at the top of the device where the material from one entrance and a second material from the second entrance mix up together before entering the capillary channels and extruded out the meltblown die tip after already being combined whereby the first and second plurality of orifices and their corresponding conduits alternate with one another, rather they converge together.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. Nagesh Rao whose telephone number is (571) 272-2946. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571)272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GNR

  
ROBERT DAVIS  
PRIMARY EXAMINER  
GROUP 1300, 200  
6/30/06